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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/617,549	FOOTE ET AL.
Office Action Summary	Examiner	Art Unit
	Melur Ramakrishnaiah	2643
The MAILING DATE of this communication appearing for Reply	pears on the cover sheet with the c	correspondence address
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).	NATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).
Status		
Responsive to communication(s) filed on <u>05 №</u> This action is FINAL . 2b) This Since this application is in condition for alloward closed in accordance with the practice under №	s action is non-final. ince except for formal matters, pro	
Disposition of Claims		
4) ☐ Claim(s) 1-19 and 23-45 is/are pending in the 4a) Of the above claim(s) is/are withdra 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-19, 23-42, 45 is/are rejected. 7) ☐ Claim(s) 43 and 44 is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	wn from consideration.	
Application Papers		
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine 11.	epted or b) objected to by the liderawing(s) be held in abeyance. See tion is required if the drawing(s) is obj	e 37 CFR 1.85(a). lected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list	ts have been received. ts have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)
Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	Paper No(s)/Mail Da	

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Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 1-15, 17, 23, 24-36, 38, 41-42, are rejected under 35 U.S.C 102 (b) as being anticipated by Graham (WO 98/51078).

Regarding claim 1, Graham discloses communication system comprising: a screen (40, fig. 1) adapted to display a subject, the screen having a posture controllable by the subject, and a camera (50, fig. 1) adjacent to the screen, and trainable on a desired location allowing the subject to view the desired location, wherein motion of the camera relative to the screen is confined such that when camera is trained on the desired location (page 3 lines 5-18), a gaze of the subject is displayed by the screen appears substantially directed at the desired location (page 3 lines 5-18, page 5, line 19 – page 6, line 25).

Regarding claim 23, Graham discloses a communication device, comprising: a means (40, fig. 1) for displaying a subject, and a camera (50, fig. 1) adjacent to the means for displaying, the camera being fixedly connected with the means for displaying, wherein change in an attitude of camera is substantially track change in an attitude of the means for displaying (page 3 lines 5-18), wherein the attitude for means for displaying is adapted to be controlled by the subject (abstract, page 3 lines 5-18, page 5, line 19 – page 6, line 25, page 12 lines 28-30).

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Regarding claim 24, Graham discloses a system to facilitate communication between a subject and at least one participant, comprising: a screen (40, fig. 1) adapted to display the subject, the screen having a posture adapted to be controlled by the subject, and a camera (50, fig. 1) adjacent to the screen and trainable on a selected participant (page 3 lines 5-18), the camera allowing the subject to view the selected participant, wherein motion of the camera relative to the screen is confined such that when camera is trained on the selected participant gaze of the subject displayed by the screen appears substantially directed at the selected participant (abstract, page 3 lines 5-18, page 5, line 19 – page 6, line 25, page 12 lines 28-30).

Regarding claim 41, Graham discloses a method for conducting a conference, comprising: activating a remote terminal for displaying desired location to a subject at remote location, activating a device (40, fig. 1) for displaying the subject to the first desired location, capturing the first desired location using a camera associated with the device, displaying the subject such that substantially full scale image appears on the device (page 2 lines 15-20), positioning the device such that the gaze of the subject is substantially directed at a first desired location and first desired location is displayed on the remote terminal, and repositioning the device at a command of one of the subject or a participant at the conference such that the gaze of the subject appears substantially directed at a second desired location, capturing the second desired location using a camera associated with the device, displaying the subject such that substantially full scale image appears on the device, wherein the capture of the first and second locations using a camera is substantially synchronized with the positioning of the device

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(abstract, page 3 lines 5-18, page 5, line 19 – page 6, line 25, page 12 lines 28-30, page 15 lines 7-11).

Regarding claims 2-15, 17, 25-36, 38, 42, 45, Graham further teaches the following: desired location includes a selected participant, selected participant is one of a person, a second screen, a telephone, an intercom, a video camera etc, screen is sized such that at least a portion of the subject including a face can be displayed at substantially full scale (page 2 line 15-20), at least one speaker for reproducing remote sounds from a remote location so that remote sounds are audible at the desired location (page 3, line 28 –page 4, line 6), at least one microphone for detecting the sounds at the desired location so that sounds at the desired location can be communicated to the subject (page 3 lines 28-32), a remote terminal for displaying an image captured by the camera to the subject, and a control arrangement connected to the remote terminal including means for controlling the posture of the screen thereby controlling field of view of the camera (page 2 lines 15-20), at least one remote speaker connected with the remote terminal for reproduction of sounds audible at a selectable proximity to the desired location so the sounds are audible to the subject, at least one remote microphone connected with the remote terminal for detecting remote sounds produced by the subject so that remote sounds can be reproduced at least one speaker (claim 13), means for controlling the posture is at least one of plurality of buttons, a keyboard, a joystick, a touch screen etc (page 11 lines 8-16), a means for zooming the camera so that the subject can adjust a field of view of the camera (page 12 lines 30-32), means for zooming is at least one of plurality of buttons, a joystick, a keyboard, etc (page 13

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lines 2-4, page 11 lines 14-16)a means for communicating a non verbal gesture wherein nonverbal gesture includes movement of the screen (page 15 lines 3-12), means for communicating a non verbal gesture is at least a one of plurality of buttons, a keyboard, a joystick, etc, non verbal gesture is one of a nod performed by the screen to indicate a positive response and shake performed by the screen (reads on waving hand) to indicate a negative response (page 2 lines 26-32), at least one microphone array (62a-62c, fig. 1) adapted to identify the direction of the origin of a sound (page 13 lines 5-9). camera (50, fig. 1) has a field of view centered at a position along the axis projecting from the means for displaying (40, fig. 1, the axis being perpendicular to a plane formed by the means for displaying, wherein position approximates a typical distance between the means for displaying and location of target of attention such that the camera is trained on a selected target of attention a gaze of the subject displayed by means of displaying means substantially directed at the selected targeted of attention (page 6 lines 7-25), detecting the sounds from a desired location, reproducing sounds from the desired location to the remote location, detecting sounds at the remote location, and reproducing sounds from the remote location (claim 13), screen and the camera are physically synchronized (page 15 lines 9-11)

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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4. Claims 16, 37, are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Nimiri et al. (US PAT: 6,771,302, filed 8-14-2002, hereinafter Nimiri).

Regarding claims 16, 37, Graham does not teach the following: non-verbal gesture is text displayed on the screen.

However, Nimiri discloses videoconference closed caption system and method which teaches the following: non-verbal gesture is text displayed on the screen (fig. 7 col. 6 lines 14-42).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Graham's system to provide for the following: non-verbal gesture is text displayed on the screen as this arrangement would provide means for conveying information for hearing impaired and foreign speakers in a conference as taught by Nimiri (col. 1 lines 51-59), thus enhancing the video conference participation.

5. Claims 18 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Kajii et al. (JP358021961A, hereinafter Kajii).

Regarding claims 18 and 39, Graham does not teach the following: remote viewer provides a visual indication of the direction of the origin of the sound to the subject.

However, Kajii discloses audio remote control conference system which provides the following: remote viewer provides a visual indication of the direction of the origin of the sound to the subject (fig. 1, see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Graham's system to provide for the following: remote

viewer provides a visual indication of the direction of the origin of the sound to the subject as this arrangement would provide means for identifying the speaker in conferencing system as taught by Kajii, thus conferees being made aware of the speaker so that they can pay attention to the speaker in the conference.

6. Claims 19 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graham in view of Ishibashi (JP411234640A).

Regarding claims 19 and 40, Graham does not teach the following: remote receiver provides an audible indication of the direction of the origin of a sound to the subject.

However, Ishibashi discloses communication control system which teaches the following: remote receiver provides an audible indication of the direction of the origin of a sound to the subject (fig. 1, see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Graham's system to provide for the following: remote receiver provides an audible indication of the direction of the origin of a sound to the subject as this arrangement would provide means for identifying the speaker in conferencing system as taught by Ishibashi, thus conferees being made aware of the speaker so that they can pay attention to the speaker in the conference.

7. Claims 43-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Arguments

8. Applicant's arguments filed on 5-5-2005 have been fully considered but they are not persuasive.

Rejection of claims 1-15, 17, 23, 24-36, 38, 41-42, under 35 U.S.C 102 (b) as being anticipated by Graham (WO 98/51078): regarding rejection of claim 1 using the above reference, Application argues that "However, Graham fails to discloses a communication system "wherein motion of the camera relative to the screen is confined such that when the camera is trained on the desired location (selected participant), a gaze of the subject displayed by the screen appears substantially directed at the desired location (selected participant)" as recited in claims 1 and 24". Contrary to application interpretation of Graham reference, Graham teaches the following: in response to control signal, the rotating upper stage (24, fig. 2b) of the swivel base, the video monitor (40, fig. 2b) and video camera (50, fig. 2) have turned partially towards the viewer/speaker (viewer/speaker not shown) but assumed to be in the same viewing position for all figus 2a-2c). In fig. 2c, the rotating upper stage (24, video monitor 40, and video camera have turned fully towards the viewer/speaker (page 6, lines 13-25). This clearly reads on applicants claims limitation such as wherein motion of the camera relative to the screen is confined such that when the camera is trained on the desired location (selected participant), a gaze of the subject displayed by the screen appears substantially directed at the desired location (selected participant)" as recited in claims 1 and 24". Application again argues that "Nowhere does Graham discloses a communication system "wherein motion of the camera relative to the screen is confined

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such that when the camera is trained on the desired location (selected participant), a gaze of the subject displayed by the screen appears substantially directed at the desired location (selected participant)" as recited in claims 1 and 24". Regarding this, Graham discloses the following: sound location system built into the teleconferencing robot can be used to determining where the speaking person is positioned relative to the teleconferencing robot, and can be used to generate a control signal to automatically swivel the video monitor head left or right so that the remote conferee appears to be turning to look at the person speaking (page 3 lines 11-19). When this happens camera (50, figs. 1-2) moves along with the display to image the speaking participant, and in this case camera movement is also confined relative to the screen movement. This clearly reads on applicants limitation such as wherein motion of the camera relative to the screen is confined such that when the camera is trained on the desired location (selected participant), a gaze of the subject displayed by the screen appears substantially directed at the desired location (selected participant)" as recited in claims 1 and 24. Regarding rejection of claim 23, Applicant argues that "Graham does not teach a communication system "wherein a change in attitude of the camera substantially tracks a change in an attitude of the means for displaying", as recited in claim 23". Regarding this, as explained above in connection with claims 1 and 24, Graham teaches the following: sound location system built into the teleconferencing robot can be used to determining where the speaking person is positioned relative to the teleconferencing robot, and can be used to generate a control signal to automatically swivel the video monitor head left or right so that the remote conferee

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appears to be turning to look at the person speaking (page 3 lines 11-19). When this happens camera (50, figs. 1-2) moves along with the display to image the speaking participant. This reads on applicant's claim limitation such as wherein a change in attitude of the camera substantially tracks a change in an attitude of the means for displaying. Regarding rejection of claim 41, applicant argues that "Graham does not teach a method "wherein capturing of the first and second desired locations using a camera is substantially synchronized with the positioning of the device" as recited in claim 41". Regarding this, Graham teaches automatically tracking the speaking participant and moving the camera and display synchronously to capture the picture of the speaking participant (page 3 lines 10-16, page 6 lines 7-22). This clearly reads on the applicant's claim limitation such as wherein capturing of the first and second desired locations using a camera is substantially synchronized with the positioning of the device" as recited in claim 41. Applicant's arguments regarding dependent claims 2-15, 17, 24-36, 38, 42 are tied to independent claims being patentable which are not as explained above.

Rejection of claims 16, 37, under 35 U.S.C. 103(a) as being obvious over

Graham in view of Nimiri (US PAT: 6,771,302): regarding rejection of claims 16 and 37 using the above combination of references, Applicant argues that "since Graham in view of Nimiri fails to teach or suggest a communication system :wherein motion of the camera relative to the screen is confined such that when the camera is turned on the desired location (selected participant), a gaze of the subject is displayed by the screen appears substantially directed at the desired location selected participant), "Graham in

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view of Nimiri cannot render the claims 1 and 24 obvious under 35 U.S.C 103(a)". regarding this, as explained above in response to applicants arguments with respect to claims 1 and 24, Graham teaches the limitation of claim 1 and 24, the rejection of dependent claims 16 and 27 is maintained. Applicant's arguments with respect to other dependent claims (claims 18 and 39, 19 and 40) are tied to independent claims being patentable which are not as explained above, rejection of the above dependent claims is maintained.

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Melur Ramakrishnaiah

Primary Examiner

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